

Effectiveness of Peer Collaborative Learning Strategy on Self-Esteem of Pupils With Behaviour Problems in Nsukka Education Authority

Friday Mamudu Adene¹, Else Chizua Umeano¹, Dorothy Ebere Adimora¹, Christian Sunday Ugwuanyi^{2,3}, Chinedu I.O. Okeke³, Edmund Eberechukwu Offodile¹, Fidelis Eze Amaeze¹, Uchenna Eugenia Uzodinma¹, Yakubu Abdullahi⁴, Juliana Ngozi Ejiofor¹, Evelyn Nkiruka Ishiwu¹,

¹Department of Educational Foundations, Faculty of Education, University of Nigeria, Nsukka

²Department of Science Education, Faculty of Education, University of Nigeria, Nsukka

³School of Education Studies, Faculty of Education, University of the Free State, Bloemfontein, 9300, South Africa

⁴Department of Educational Psychology, School of Education, FCT College of Education, Zuba, Abuja

Authors' note

Christian S. Ugwuanyi <https://orcid.org/0000-0003-2174-3674>

Chinedu I.O. Okeke <https://orcid.org/0000-0003-3046-5266>

Corresponding author: Dr. Offodile, Edmund Eberechukwu, Department of Educational Foundations, Faculty of Education, University of Nigeria, Nsukka
edmund.offordile@unn.edu.ng

Abstract

This study investigated the effect of peer collaborative learning strategy on self-esteem of pupils with behaviour problems. A pre-test, post-test, non-equivalent control group design was used for the study using a sample of 125 middle basic five pupils identified as pupils with Oppositional Defiant Disorder (ODD). Researchers-made questionnaires titled Pupils' Behaviour Problems Observation Checklist (PBPOC) teachers' version, Pupils' Behaviour Problems Measuring Scale (PBPMS), and Pupils' Self-Esteem Measuring Scale (PSEMS) were the instruments used in collecting data for the study. The internal consistency reliability index of PBPMS was 0.85 while that of PSEMS was 0.92. Mean and analysis of covariance were used to analyze the data collected. It was found that effect of peer collaborative learning strategy on self-esteem of pupils with behaviour problems was significant. However, further analysis showed that gender had no significant influence on self-esteem of pupils with ODD. It was therefore recommended that every school that practices inclusive education should adopt a well-structured peer collaborative learning strategy in order to capture the interest of pupils with special needs, especially pupils with ODD kind of behaviour problems.

Keywords: Problem Behaviour, Self-Esteem, Peer Collaborative, Learning Strategy.

INTRODUCTION

Some pupils especially, pupils with behaviour problems in middle basic schools not only face academic challenges but also social and psychological challenges in their academic endeavour. Pupils with such behaviour problems make teacher's efforts in the classroom boring and unsuccessful (Jessor, 2013). There are a number of behaviour problems which school children exhibit in the classroom, but this study specifically focused on Oppositional Defiant Disorder (ODD). ODD is a disorder characterized by regular pattern of aggressive and defiant behaviour with the intention to annoy others and being hostile toward various authority figures (American Academy of Child and Adolescent Psychiatry, 2015). Such pupils' behaviour inhibits effective teaching and learning as it affects them and other pupils in the classroom. Pupils with such behaviour problems need an intervention strategy at the early stage, before it leads to serious adjustment problems as they advance to high school. The ODD exhibited by middle basic five pupils identified in Nsukka local Government Education Authority include frequent temper tantrums, frequent arguing with both peers and adults, intentionally annoying others, blaming others for own mistakes, actively defying requests, refusing to follow rules, being touchy, being spiteful, seeking revenge and appearing angry and vindictive. In the context of this work the manifestations of these behaviour referred as ODD could be traceable to their self-esteem.

Self-esteem is the reflection of one's overall evaluation or appraisal of one's worth as a person. Self-esteem also refers to positive and negative evaluation of self (Woollfolk, 2013). It is also perceived as a stable sense of personal worth or worthiness (O'Mara et al, 2006). Self-esteem is the acceptance, respect for, as well as the confidence and satisfaction, which one has in self as a person. It refers to the value that individuals place on their own characteristics, qualities, abilities and actions (Griffin-Shirley & Nes, 2005). Self-esteem, according to Cherry (2013) refers to a person's overall sense of self-worth. Carla (2006) assert that one begins to create an internal image in early childhood based on interactions with others and the environment, especially the signals (the kind of interaction that exist between parents and pupils at home and in school) and messages one receives from other persons in the environment. Pupils also receive signals and messages from other authorities such as performance in school, sports and how likeable childhood peers and friends make one feel. During this formative time, if one receives negative signals and messages, one may later develop low or unhealthy self-esteem. An individual may either have high or low self-esteem. High self-esteem may refer to accurate, justified perceptions of one's worth as a person and one's success and accomplishments, but it can also refer to an arrogant, grandiose, and unwarranted sense of superiority over others. In the same manner, low self-esteem may reflect either an accurate perception of one's shortcomings or a distorted, even pathological sense of insecurity and inferiority (Baumeister, Jennifer; Joachim, & Vohs, 2003). Past studies like Modaber and Bayan far (2017); Backer, Miller and Timmer (2018) indicated that collaborative learning strategy has significant effect on students' self-esteem and school engagement.

Regrettably, pupils with Oppositional Defiant Disorder (ODD) identified in Nsukka Local Government Education Authority could be traceable to their low state of self-esteem. A study carried out in Hong Kong by Wing et al. (2011) revealed that deviant behaviour like ODD was significantly positively correlated with students' self-esteem in school. Past studies (eg Mona & Mohammed, 2014; Musset, 2014; Telima, Jane & Temitope, 2013) from some developed countries of the world have suggested many innovative strategies in teaching, at the same time addresses some social and psychological problems through their usage like peer collaborative learning strategy.

Peer collaborative learning strategy involves peers working in pairs or small groups to discuss concepts, or find solutions to problems (Srinivas, 2001). Peer collaborative learning strategy gives learners ample opportunity to socialize in an interactive manner and in the process create meaning and identification of some self-constructs from the learning process. This often occurs in a class session after learners are introduced to work on a given course material.

The strategy is aimed at meeting the special needs of pupils who in one way or the other have difficulty in coping effectively during teaching and learning (Eskay et al., 2012). As the pupils engage in discussion in the classroom it also leads them in becoming critical thinkers (Eskay et al., 2012). Thus, if such critical thinking ability is activated, it will lead to boosting self-esteem which is one of the characteristics those pupils with behavior problems lack. Peer collaborative learning strategy is preferred for this study because it has been proven to be one of the best strategies for educating learners with special educational needs in primary and secondary school settings in the western world. Peer collaborative learning strategy, in the context of this study, therefore, is the grouping of pupils into a small group, usually four members, who will work together to accomplish one or more educationally related goals in their normal classroom settings. There exist four models of peer collaborative learning strategy by Srinivas (2001) which are as follows: Numbered Heads Together: Simple Jigsaw: Three Step Interview and Think-Pair Share. However, this study, adopted the Think-Pair Share model of peer collaborative learning strategy. This kind of collaborative learning strategy involves three stages where the instructor first poses a question that could demand analysis, evaluation, or synthesis and then give learners about a minute to think through an appropriate response. This "think-time" can be spent writing. Second, the students then turn to a partner and share their responses. During the third stage, students' responses can be shared within a larger group or with an entire class during a follow-up discussion. A high caliber of discussion is enhanced by this technique, and all learners have an opportunity to learn by reflection and verbalization.

The Think-Pair- Share has the following four functions: the leader of the group; the turn taking monitor- who ensure that each participant wait for its' turn; the participatory monitor-who ensures that each member of the group contributes to the academic exercise; and the noise making monitor-who also, ensures that no member of the group disrupts other participant through noise making. The researcher's hunch is that, perhaps, collaborating pupils with ODD kind of behaviour problems in carrying out academic work could promote their self-esteem as they stand the opportunity to interact, share ideas, feel for each other and critique each other politely. Some researchers perceive males as those who exhibit ODD in the classroom more than

females, while others perceive females as those who exhibit ODD in the classroom more than the males. This brings to the researchers' mind the issue of gender as another variable of interest.

Gender refers to roles, attributes and values assigned by culture and society to male and female. Gender is a culturally constructed distinction between femininity and masculinity (Gupta, 2000; Wayne, 2007). These roles attribute and values define the behaviour of male and female and the relationship between them. Gender refers to roles, attributes and values assigned by culture and society to male and female. These roles attribute and values define the behaviour of male and female and the relationship between them. They are created and maintained by social institutions such as families, governments, communities, schools, churches and media (Jude, 2013). Because of gender, certain roles, traits, and characteristics are ascribed distinctively and strictly to male and female. Socialization based on gender even within our schools assures that females are made aware that they are unequal to males. Examination of the classroom shows that females and males continue to be socialized in ways that works against gender equity. Teachers seem to socialize females towards a feminine ideal. Females are praised for being neat, quiet, and calm, whereas males are encouraged to think independently, be active, and speak up. Females are socialized in schools to recognize popularity as being important and learn that educational performance and ability are not as important (Bailey, 1992).

In a study of gender difference related to self-esteem by Pakaslahi and Keltikangas (2001) females were found to be on the average, more assertive, friendly, trustworthy and helpful; females show higher level of empathy, altruism and have less disruptive and impulsive behaviour (Willcutt & Pennington, 2000). Also, in a study conducted by Alldred (2013) females had significantly higher self-efficacy than males. This was contrary to the findings of Shkullak (2013) which reported that males had higher self-efficacy than females. In line with Shkullak's findings, Motari, Momanyi, Ogoma and Misigo (2012) found that there was significant difference in self-efficacy of males and females in science subjects, with males showing higher self-efficacy than females. These differences in males and females indicate that there is need for further research on gender regarding the psychological construct (self-esteem) of pupils with ODD in the study area. All in all, one does not know whether such differences found in the aforementioned studies could be same in the area of this study. It is against this background that the researchers intend to investigate the application of peer collaborative learning strategy on self-esteem of pupils with ODD in Nsukka Local Government Education Authority. The PCLS has been proven by researchers from other developed countries of the world to be effective in promoting self-esteem of pupils with behaviour problems. To the best knowledge of the researchers, no available literature has shown such collaborative learning strategy explored in addressing the self-esteem problem of pupils with ODD in Nigeria situation, especially, in Nsukka Local Government Education Authority of Enugu State. This study therefore investigated the effect of peer collaborative learning strategy on self-esteem of pupils with Oppositional Defiant Disorder (ODD) in the area of study.

Theoretical framework

The use of peer collaborative learning is theoretically pitched by Vygotsky's (1978) social construction of knowledge mediated by interaction of people of diverse knowledge and

skills as they communicate, share ideas and other affectionate issues through receiving information and feedback which serve as the zone of proximal development (ZPD). Vygotsky provides a theoretical basis essential for understanding the genesis of collaborative learning as the theory places emphasis on the social nature of almost all forms of innovative learning in and outside the four walls of the classroom. This he emphasized by asserting that much of human cognition is first modeled by people in their social environment, which children are not exempted within the school environment. Therefore, in the process of interaction in peer collaborative learning, the feedback children get from each other, in turn strengthens the bond of mutual understanding and cognitive abilities as they jointly strive to solve a particular task at hand. In the course of collaboratively solving a problem, children or pupils with ODD could discover some abilities they lack, which are laying silent in them, prior to their exposure to the treatment package. Fortunately, such discoveries could strengthen their self-esteem as well as reducing the manifestation of ODD kind of problem behaviour. The implantation of peer collaborative learning strategy by the classroom teacher will make pupils with ODD an active participant in teaching and learning process. Collaborating pupils with ODD and those without in carrying out an academic exercise encourages them to ask each other questions where one is missing out (Adene & Umeano, 2018). As they explain to each other their ideas, it enhances their self-knowledge of capabilities and feelings. It could be logically stated that self-esteem which addresses how one evaluate self will exert a tremendous influence on how the person feels about self, thereby exerting a tremendous influence on how to relate to others socially, emotionally, and academically.

Purpose of the study

The main purpose of this study was to investigate the effect of peer collaborative learning strategy on self-esteem of pupils with Oppositional Defiant Disorder (ODD). Specifically, this study seeks to determine the:

1. Effect of peer collaborative learning strategy on self-esteem of pupils with Oppositional Defiant Disorder (ODD).
2. Influence of gender on self-esteem of pupils with Oppositional Defiant Disorder (ODD)
3. Interaction effect of both learning strategies and gender on self-esteem of pupils with Oppositional Defiant Disorder (ODD)

METHOD

Ethical Consideration

The educational psychology unit of the department of educational foundations, University of Nigeria, Nsukka approved this study. Before collection of baseline data on pupils with ODD, the researchers also obtained permission from the various school administrations and informed consent from parents of the participants

Participants

The study adopted the Quasi-experimental Non-equivalent; Pre-test Post-test Control group design. The intact classes were assigned to experimental and control groups, the experimental group adopted peer collaborative learning strategy and the control group using the conventional

(lecture) method. Intact classes were used in the study in order not to disrupt the normal classroom arrangement since the study lasted for a period of six weeks. This design has been used by

The population of the study comprises of 125 pupils made up of 77 males and 48 females identified to exhibit Oppositional Defiant Disorder (ODD) at the middle basic five classes drawn from four schools, two each from Nsukka West and Nsukka East respectively. Ethical permission was requested and granted from Institutional Review Board from University of Nigeria, Nsukka. The board copied the headmistress and headmasters of the primary schools as well as parents of the children used for the study.

Instruments

Pupils' Behaviour Problem Observation Checklist (PBPOC)

Pupils' Behaviour Problem Observation Checklist (PBPOC) teachers' version which consists of 25 items was used to identify those behaviours that depict how a child behaves in the classroom through the help of their teachers. The items were structured in a four likert type of Rarely, Sometimes, Often and Very Often which attract scores of 1, 2 3, and 4 respectively. Some of the items which their teachers used in identifying them are as follows; "the pupil easily get upset by other pupils in school during class discussion", "the pupil deliberately annoy other pupils in school without any cause", "do call out answers unnecessarily to other pupils when taking examination", "do absent self from school at his/her own time, make fun of other pupils during lesson by bullying", " the pupil likes being vengeful without provocation from anybody".

Pupils' Behaviour Problems Measuring Scale (PBMS)

Pupils' Behaviour Problem Measuring Scale (PBMS) which consists of 25 items as well was designed and utilized in determining the actual number of those pupils who exhibit problem behaviour associated with ODD kind of problem behaviour in the classroom through pupils' responses including those whom their teachers did not identify. The instrument was adapted from Emotional and Behaviour Problem Scale-Second Edition (EBPS-2) by Stephen and Tamara (2001). It was modified by the researchers to suit the present study. The items were structured in a four likert type of Rarely, Sometimes, Often and Very Often which attract scores of 1, 2 3, and 4 respectively. Some of the items which the researchers used in identifying them are personalize and are as follows; "I easily get upset by other pupils in school during class discussion", "I deliberately annoy other pupils in school without any cause", "I do call out answers unnecessarily to other pupils when taking examination", "I do absent myself from school at my own will", "I make fun of other pupils during lesson by bullying", "I like being vengeful without provocation from anybody", "I actively refuses to comply with school rules and regulations like dressing properly". Nine middle basic five pupils, identified with Oppositional Defiant Disorder (ODD) in Obollo-Affor, in Udenu Local Government Education Authority were trial tested using the instrument. Internal consistency reliability coefficient value of the instrument PBMS using the Cronbach's alpha method was determined, which yielded 0.85 alpha coefficient value. For each respondent, an overall mean score of 2.5 and above indicated that the pupil meets the criteria of manifesting ODD in the classroom.

Pupils’ Self-Esteem Measuring Scale (PSEMS)

Pupils’ Self-Esteem Measuring Scale (PSEMS) adapted from Rosenberg (1965) which consists of 18 items was used to elicit information on pupils’ self-esteem. The scale measures the way such pupils with ODD perceive themselves which could either be high or low self-esteem. The items which were responded to was structured on a four-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The values attached to the responses include: SA-4points, A-3points, D-2points and SD-1points respectively for items on the positive pole like; “I think I have a good sense of self-worth”, “I believe I command much respect from people”, “I believe I can take decision for myself”, “I certainly feel people respect me”, “I am satisfied with myself on the whole”, “I feel happy the way I am”. Nine middle basic five pupils, identified with Oppositional Defiant Disorder (ODD) in Obollo-Affor, in Udenu Local Government Education Authority were trial tested using the instrument. Internal consistency reliability coefficient value of the instrument PSEMS using the Cronbach’s alpha method, which yielded 0.91 alpha coefficient values.

Data Analysis

The data collected were analyzed using mean and standard deviation. The hypotheses were tested at 0.05 level of significance using Analysis of Covariance.

RESULTS

Research Question One: What is the effect of peer collaborative learning strategy on self-esteem of pupils with Oppositional Defiant Disorder (ODD)?

Table 1: Mean and Standard Deviation of Self-Esteem Ratings of Pupils with ODD Exposed to Peer Collaborative Learning Strategy and those not Exposed

Group	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Experimental	64	2.65	.24	2.98	.19	0.23
Control	61	2.75	.13	2.78	.25	0.03

Table 1 revealed that pupils with Oppositional Defiant Disorder (ODD) exposed to peer collaborative learning strategy had higher posttest mean self-esteem ($M = 2.98, SD= 0.19$) than the control group ($M = 2.78, SD= 0.25$). Mean gain self-esteem of 0.23 and 0.03 for the two groups respectively imply that the pupils with ODD who were exposed to peer collaborative learning strategy had higher self-esteem than their counterparts.

H₀₁: There is no significant effect of peer collaborative learning strategy on self-esteem of pupils with Oppositional Defiant Disorder (ODD)

Table 2: Analysis of Covariance of the Effect of Peer Collaborative Learning Strategy on the Self-Esteem of Pupils with ODD

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	.649 ^a	4	.162	3.558	.015
Intercept	1.296	1	1.296	28.391	.000
Pre Self-Esteem	.094	1	.049	1.074	.096

Group	10.094	1	10.094	12.069	.002
Gender	.043	1	.043	.953	.336
Group * Gender	.143	1	.143	3.143	.085
Error	1.597	122	.046		
Total	330.353	125			
Corrected Total	2.247	124			

a. R Squared = .289 (Adjusted R Squared = .208)

Table 2 shows that there is a significant effect of peer collaborative learning strategy on the mean self-esteem of pupils with ODD exposed to peer collaborative learning strategy, $F(1,122) = 12.069, p = 0.002$. This is for the fact that the associated probability 0.002 is less than the 0.05 level of significance. Thus, the null hypothesis was rejected.

Research Question Two: What is the influence of gender on self-esteem of pupils with Oppositional Defiant Disorder (ODD)?

Table 3: Mean and Standard Deviation of Self-Esteem Ratings of Male and Female Pupils with ODD Exposed to Peer Collaborative Learning Strategy

Gender	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Male	77	2.69	.22	2.87	.25	0.18
Female	48	2.69	.13	2.83	.17	0.14

Table 3 reveals that male pupils with ODD had mean self-esteem of 2.69 with a standard deviation of .22, while their female counterparts had mean self-esteem of 2.69 with a standard deviation of .13 in the pre-test. Results in the Table also, reveals that male pupils with ODD had mean self-esteem of 2.87 with a standard deviation of 0.25 in the post-test while their female counterparts had mean self-esteem of 2.83 with a standard deviation of 0.17. Mean gain self-esteem of 0.18 and 0.14 for male and female pupils with ODD respectively indicate that male pupils had higher mean self-esteem than their female counterparts.

H₀₂: There is no significant influence of gender on self-esteem of pupils with Oppositional Defiant Disorder (ODD).

Table 2 shows that the probability associated with the calculated value of F (.953) for the influence of gender on self-esteem of pupils with ODD is 0.336. Since the probability value of .336 is greater than the .05 level of significance ($p > .05$), the null hypothesis was not rejected, meaning that the influence of gender on self-esteem of pupils with ODD in Nsukka Local Government Education Authority is not significant.

Research Question Three: What is the interaction effect of both learning strategies and gender on self-esteem of pupils with Oppositional Defiant Disorder (ODD)?

Table 4: Mean and Standard Deviation of Self-Esteem of Pupils with ODD for the Interaction Effect of both Learning Strategies and Gender

Group	Gender	N	Pre-test		Post-test	
			Mean	SD	Mean	SD
Experimental	Male	41	2.66	.25	3.07	.19
	Female	23	2.59	.03	2.83	.24
Control	Male	36	2.75	.14	2.77	.26
	Female	25	2.74	.13	2.80	.16

Table 4 shows that male experimental group had a post-test mean self-esteem of 3.07 with a standard deviation of 0.19 while the male pupils of the control group had a post-test mean self-esteem of 2.77 with a standard deviation of 0.26. For the female pupils with ODD, the experimental group had a post-test mean self-esteem of 2.83 with a standard deviation of 0.24 while the control group had a post-test mean self-esteem of 2.80 with a standard deviation of 0.16. This by implication shows that both male and female pupils with ODD of the experimental group had higher self-esteem than the male and female pupils of the control group.

H₀₃: There is no significant interaction effect of both learning strategies and gender on self-esteem of pupils with Oppositional Defiant Disorder (ODD).

Results in Table 2 shows that the probability associated with the calculated value of F (3.143) for the interaction effect of learning strategies and gender on self-esteem of pupils with ODD is 0.085. Since the probability value of .085 is greater than the .05 level of significance ($p > .05$), the null hypothesis was accepted meaning that the interaction effect of both learning strategies and gender on the self-esteem of pupils with ODD is not significant.

Discussion of the Findings

Results revealed that pupils with Oppositional Defiant Disorder (ODD) who were exposed to peer collaborative learning strategy had significantly higher mean self-esteem score than their counterparts exposed to the conventional method of instruction. This finding is in line with studies conducted by Mona and Mohammed (2004) which indicated that cooperative learning significantly enhances students’ self-esteem. Backer, Jeanine, Miller, Jaymeson and Timmer, Shannon (2018) also found collaborative learning strategy effective in enhancing students’ engagement in school. It is also in line with Musset (2014) whose study indicated that collaborative strategy (Video interaction guidance) significantly increases the self-esteem of the pupils among others. The study by Modaber and Bayan far (2017) also indicated that collaborative strategy has a significant impact on students’ self-esteem.

The findings also showed that the influence of gender on self-esteem of pupils with oppositional defiant disorder in Nsukka Local Government Education Authority is not significant. It was equally found that the interaction effect of peer collaborative learning strategy and gender on the self-esteem of pupils with ODD was not significant. This implies that the enhancement of the pupils’ self-esteem was as a result of the intervention using peer collaborative learning strategy. The finding of this study is contrary to the findings of Evelyn

(2013); Abhishek and Gaurar (2013) and Pamela and Jacqueline (1996) as their findings indicated a significant influence of male self-esteem against their female counterpart.

These findings have several educational implications. The findings of this study have some important educational implications for the special and general education teachers, pupils with behaviour problem like ODD and other forms, curriculum planners, textbook writers, school proprietors, and school counselors. In the first instance, the study provides empirical evidence that peer collaborative learning strategy can be a veritable tool for enhancing self-efficacy belief, self-esteem, and social competence of pupils with behaviour problem. It will not just be enough to include pupils with behaviour problem in the regular classroom; there is also the need for regular education teachers to provide a social and motivational environment in the classroom through peer collaborative learning strategy. This will help promote positive and supportive peer interactions which will in turn enhance the self-efficacy belief, self-esteem, and social competence of pupils with ODD behaviour problem.

Curriculum planners may need to modify the primary or lower basic and secondary school curriculum to include collaborative learning strategy as one of the best approaches to educating pupils with special needs. In order to achieve this, there is need for the various teacher training institutions such as in Faculties of Education in the Nigerian Universities, Colleges of Education (COE) and National Teachers' Institutes (NTI) to train the general teachers how to incorporate the peer collaborative learning strategy in the general classrooms. After all, one cannot give what one does not have.

From the findings of this study, it is obvious that there is need for textbook writers of books in various subjects offered in primary schools to incorporate peer collaborative learning strategy in their books as this will go a long way in strengthening the adoption of the strategy. The strategy could be found by students and school counselors as a veritable tool for reducing school based interpersonal social problems like bullying and lack of empathy, care, cooperation, responsibility, assertiveness and self-control as the strategy promotes the development of interpersonal skills.

Conclusion

From the following findings and discussions, the following conclusions were made: Peer collaborative learning strategy for pupils with ODD can enhance their self-esteem; Gender was not a significant factor in the self-esteem of pupils with ODD; The interaction effect of both learning strategies and gender on self-esteem of pupils with ODD is not significant. In all, the study provides empirical evidence that peer collaborative learning strategy can be a veritable tool for enhancing self-esteem of pupils with behaviour problems. There is, therefore, the need for teachers in the general classroom settings to employ appropriate teaching and learning strategies that will help in promoting the self-esteem of pupils with Oppositional Defiant Disorder (ODD).

Recommendations

Based on the findings and educational implications of this study, the following recommendations were made:

1. Every school that practices inclusive education should adopt a well-structured collaborative learning strategy in order to capture the interest of pupils with special needs like pupils with ODD behaviour problems. This will encourage pupils with such needs to be fully integrated.
2. Having seen the positive effect of collaborative learning strategy on the self-efficacy belief, self-esteem and social competence of pupils with ODD behaviour problems in middle basic schools, the Federal and State Ministries of Education should incorporate it as an essential part of the teacher training programme in Faculty of Education found in the Nigerian Universities, Colleges of Education and National Teacher Institutes. In this way, potential teachers who will teach pupils with behaviour problems and other special needs students will be well equipped to face the challenges of meeting the diverse social and academic needs of the learners in the general classroom settings.
3. The Federal and State Ministries of Education should mandate professional bodies like Nigerian Council of Educational Psychologists (NCEP), Counseling Association of Nigeria (CASSON), Science Teachers' Association of Nigeria (STAN), and Curriculum Organization of Nigeria (CON) among others to organize seminars and conferences for teachers on peer collaborative learning strategy with a view to engendering intellectual discourses on the strategy

REFERENCES

- Abhishek, K., B. & Gaurar. A. (2013). Gender difference in pre-adolescents 'self-esteem in north Indian. *International journal of social science and inter-disciplinary research*.2, 8-36. Retrieved online from @indianresearchjournals.com.
- Adene, F.M. & Umeano, E.C. (2018). Effect of peer collaborative learning strategy on self efficacy of pupils with behaviour problems in Nsukka Education Authority. *Journal of the Nigeria Council of Educational Psychologists*, 12(1), 112-128
- Allred, C.C. (2013). *A study of eight grade students' self-efficacy as it relates to achievement, gender, and socioeconomic status*. (Unpublished Ph. D thesis). Liberty University North Eastern Georgia, USA.
- American Academy of Child & Adolescent Psychiatry (2015). *Expert interviews- Oppositional Defiant Disorder*. Retrieved from http://www.aacap.org/cs/expert_interviews/oppositiona_l_defiant_disorder
- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed). Washington. DC: American Psychiatric Association.
- Anthony, A. O., Adegboyega, O. & Timothy, O. A. (2016) correlates of conduct disorder among inmates of a Nigerian borstal institution. *Journal of Child and Adolescent Psychiatry and Mental Health*, 10,48-62

- Asamaigo, E. E., & Okoiye, O. E. (2012). Effects of cooperative learning and contingency contracting on mathematics achievement of pupils with Attention Deficit Hyperactivity Disorder in Delta state. *Journal of Research in Education and Society*, 3(3), 36-47
- Backer, J. M., Miller, Jaymeson, L. & Timmer, S.M. (2018). The Effects of Collaborative Grouping on Student Engagement in Middle School Students. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/280>
- Bailey, S. (1992). How schools shortchange girls. The AAUW report. New York, NY: Marowea & Company
- Baumesister, R. F., Compbell, J. O., Krueger, J. I. & Vohs, k. D. (2013). Does high self-esteem cause better performance interpersonal success, happiness, or healthier lifestyles. *Journal of psychological science in the public interest*.4,123-134
- Carla, V. (2006). Retrieved from what is self-esteem.com.www.self-esteemawareness.com.
- Cherry, K. (2013). What is self-esteem? Retrieved from [psychology.about.com/od/sindex/f/what is self-esteem.htm](http://psychology.about.com/od/sindex/f/what-is-self-esteem.htm).
- Christophersen, E., & Mortweet, S. (2001). Treatments that work with children: Empirically Supported Strategies for Managing Childhood Problems. *Journal of Clinical Child and Adolescents Psychiatry*, 67 (5), 808-820.
- Clinnard, M. B. (1994). *Sociology of deviant behaviour*. New York: Hold, Rinehart and Winston Inc.
- Cambridge Advanced Learners Dictionary (2007). Second edition. Cambridge University Press.
- De lisi, R., & Golbeck, S. L. (1991). Implications of Piagetian theory for peer learning. In O'Donnell, M. A., and King, A. (Eds). *Cognitive perspectives on peer learning*. New Jersey: Erlbaum Press.
- DeRosier, M. E. (2004). Building relationships and combating bullying: effectiveness of a school-based social skills group intervention. *Journal of Clinical Child Adolescent Psychology*, 33, 196-201.
- Ejimonye, J.C., Onuoha, J.C., Ugwuanyi, C.S., Eneogu, N.D., Ugwuanyi, B.E & Ogbuehu, S.N (2020a). Effectiveness of Two-Dimensional Animation Technique in Enhancing Students' Motivation in Quantitative Economics Concepts. *International Journal of Future Generation Communication and Networking (IJFGCN)*, 13(1):27-38.

- Ejimonye, J.C., Ugwuanyi, C.S., Okeke, C.I.O., & Nwoye, M.N. (2020b). Two-Dimensional Animation and Students' Achievement in Mathematical Economics: Implications for Science Teaching. *International Journal of Engineering Research and Technology*, 13(6), 1220-1230
- Eskay, M., Onu, V. C., Obiyo, N. & Obidoa, M. (2012). Use of peer tutoring, cooperative learning, and collaborative learning: implications for reducing anti-social behaviour of schooling adolescents. University of Nigeria, Nsukka, Enugu State. *US China Education Review*, 11, 932-945.
- Griffin-Shirley, N., & Nes, S. L. (2005). Self-esteem and empathy in sighted and visually impaired preadolescents. *Journal of visual impairment and blindness*, 99(5), 276-285.
- Gupta, A. (2000). Enterprise resource planning: the emerging organizational values systems" *Journal of Industrial Management and Data System*, 100(3), 114-118
- Harper, G. F., & Maheady, L. (2007). Peer-mediated teaching and students with learning disabilities. *Intervention in School and Clinic*. 43, 101-107. Doi: 10.1177/10534512070430020101.
- Jessor, R. (2013). Behaviour problems in theory: A half century of research on adolescent behaviour and development. In Lerner, R. M. Peterson, A. C, Siibereisen, R.K., & Brooks-Gunn, J. (Eds)" *The developmental Science of adolescence: History through autobiography*" New York: psychology press, 239-256.
- Kids Mental Health (2016). *Children conduct disorder oppositional defiant disorder ODD*. Retrieved from <http://www.kidsmentalhealth.org/children-conduct-disorder-oppositional-defiant-disorder-odd/>
- Mona, M., & Mohammad, F.A. (2014). Effect of cooperative learning on undergraduate nursing students' self-esteem: A quasiexperimental study. *Journal of Nursing Education and Practice*, 4 (11), 1-7. Doi: <https://doi.org/10.5430/jnepv4>
- Motari, J., Momanyi., Ogomma, S.O., & Misigo, B.L. (2012). Gender differences in self-efficacy and academic achievement in science subjects among senior secondary school in *Lugari District, Kenya*. Retrieved from www.fuerluger.selfbelif.htm.
- Musset, M. J. (2014). The impact of video interactional guidance on primary school pupils' self-esteem, attitudes, behaviors and skills in collaborative group work. (Unpublished Ph.D thesis). University of Dundee, Scotland. Retrieved from <http://discovery.dundee.ac.uk/portal/en/theses/the-impact-of->

- Njoku, M.I.A., Nwagbo, C.R., & Ugwuanyi, C.S. (2020). Effect of Peer Tutoring and Peer-Led Team Learning on Students' Achievement in Biology. *International Journal of Database Theory and Application (IJDTA)*, 13(1),1-10. <https://doi.org/10.33832/ijdta.2020.13.1.01>.
- O'Donnell, M. (2006). Collaborative learning, reasoning, and technology. In Angela, M.,Cindy, E., Hmelo, S., and Gijbert, E.(Eds). Retrieved from <http://books.google.com.ng/books?id=qAHdTgIvqoQC&printsec=frontcover#v=onepage&q&qf=false>.
- O'Mara, A. J., Marsh, H. W., Craven, R. G., & Debus, R. (2006). Do self-concept interventions make a difference? A synergistic blend of construct validation and meta-analysis. *Educational psychologist*, 41, 181-206.
- Onah, E.N., Ugwuanyi, C.S., Okeke, C.I.O., Nworgu, B.G., Agwagah, U.V.N., Ugwuanyi, C.C., Obe, P.I., Nwoye, M. N., & Okeke, A.O. (2020). Evaluation of the Impact of Computer-Assisted Instruction on Mathematics and Physics Students' Achievement: Implication for Industrial Technical Education. *International Journal of Engineering Research and Technology*, 13(7): 1786-1794. http://irphouse.com/ijert20/ijertv13n7_35.pdf.
- Pamela, F. & Jacquelynne, E. (1996). Gender-role identity and self-esteem. University of Michigan. Presented at the biannual meeting of the society for research on adolescence in Boston.
- Pakaslahti, L. & Bannerjee, M. (2007). Peer-attributed prosocial behaviour among aggressive/preferred, aggressive/non-preferred, non-aggressive/preferred and non-aggressive/non-preferred adolescents. *Personality and Individual Differences*, 30,903-916.
- Quay, H. C. & Peterson, D. R. (1987). Manual for revised behaviour problem checklist. University of Miami's, Coral Gables.
- Rosenberg, M. (1965). Society and the adolescent self image. Princeton, NJ; Princeton University Press- from wikipedia, the free encyclopedia jump to navigation.
- Seligman, E. (2007). *Boosting self-esteem in adolescents*: Freeman, San Francisco, CA.
- Shkullak, R. (2013). The relationship between self-efficacy and academic performance in the context of gender among Albanian students. *European Academic Research*. 1, 25-41.
- Smith, B. L, & McGregory, J. T. (1999). "What is collaborative learning?" In Goodsell, A. S., Maher, M. R., and Tinto, V. (Eds.), Collaborative learning: A Sourcebook for Higher Education. National Center on Post-Secondary Teaching, Learning, and Assessment. Syracuse University.

- Southern Regional Education Services Center (2004). Defining behaviour problem. NHCEBIS retrieved from [hp://www.sde.ct.gov/sde/lib/sde/pdf/cali...](http://www.sde.ct.gov/sde/lib/sde/pdf/cali...)
- Srinivas, H. (2001). Collaborative learning structures and techniques. Retrieved from <http://www.gdr.org/kmgmt/i-learn/methods.html#top>.
- Stephen, B. M., McCarney & Tamara, J. A. (2001). Emotional and behaviour problem scale-2nd edition. School Version Rating Form. Hawthorne Educational Service.
- Steinberg, L. & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, 52, 83-110.
- Stevens, R. J. (2008). Cooperative learning. In Salkind, N. (Ed), *Encyclopedia of Educational psychology* (pp.188-194). Thousand Oaks', CA: SAGE, inc.doi:10.4135/9781412963848.n54.
- Telima, A., Jane, A., Temitope, A. (2013). The Effects of Collaborative Learning on Problem Solving Abilities among Senior Secondary School Physics Students in Simple Harmonic Motion. *Journal of Education and Practice*, 49(25), 95-100
- Ugwuanyi, C.S., Nduji, C.C., Gana, C.S., Nwajiuba, C.A., Ene, C.U., Okeke, A.O., Eseadi, C., Okeke, C.F. (2019). Effectiveness of flipped classroom instructional technology model in enhancing students' achievement in physics. *International Journal of u- and e- Service, Science and Technology*, 12(4): 37-46.
- Ugwuanyi, C.S., Nduji, C.C., Elejere, U.C., & Omeke, N.E. (2020). Effect of Flipped Classroom and Think Pair Share Strategy on Achievement and Retention Among Senior Secondary School Physics Students. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 52(2), 136-148. <https://www.gssrr.org/index.php/JournalOfBasicAndApplied>
- Vygotsky. L. S., (1978). *Mind in society*. Cambridge. MA: Harvard University Press.
- Willcutt, E.G. & Pennington, B. F. (2000). Comorbidity of reading disability and attention-disorder. *Journal of Learning Disabilities*, 33, 179-191.
- Wing Lo, T. Cheng, C., Rochelle, T., & Kwok, S. (2011). Self-esteem, self-efficacy and deviant behaviour of young people in Hong Kong. *Advance in Applied Sociology* 1, 45-55. [Dol10.4236/aasocl.2011.11004](https://doi.org/10.4236/aasocl.2011.11004).
- Wayne, T. K. (2007). Feminist theorizing as transposed autobiography" *Journal of lesbian Studies*, 11(112), 153-9